



1

SEQUENCE LISTING

<110> DOWER, WILLIAM J.  
CWIRLA, STEVEN E.

<120> PEPTIDE LIBRARY AND SCREENING SYSTEMS

<130> AFX-0001 US

<140> 09/650,337

<141> 2000-08-28

<150> 09/261,731

<151> 1999-03-03

<150> 08/914,403

<151> 1997-08-19

<150> 07/541,108

<151> 1990-06-20

<160> 131

<170> PatentIn version 3.5

<210> 1

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<220>

<221> CDS

<222> (1)..(66)

<400> 1

cct tta gtt gtt cca ttc tac tgg cac tcc gct gaa act gtt cca gtt  
Pro Leu Val Val Pro Phe Tyr Trp His Ser Ala Glu Thr Val Pro Val  
1 5 10 15

48

gtc tgg caa aac ctc ata  
Val Trp Gln Asn Leu Ile  
20

66

<210> 2

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 2  
 Pro Leu Val Val Pro Phe Tyr Trp His Ser Ala Glu Thr Val Pro Val  
 1 5 10 15

Val Trp Gln Asn Leu Ile  
 20

<210> 3  
 <211> 66  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 3  
 tatgaggttt tgccagacaa ctggaacagt ttcagcggag tgccagtaga atggaacaac 60  
 taaagg 66

<210> 4  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 4  
 ccttttagttg ttccattcta 20

<210> 5  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 5  
 atggaacaac taaagg 16

<210> 6  
 <211> 16  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 6  
ctggcaaaac ctcata 16

<210> 7  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 7  
tatgagggtt tgccagacaa 20

<210> 8  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 8  
cctttagttg ttccattcta ctctcactcc 30

<210> 9  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 9  
Pro Leu Val Val Pro Phe Tyr Ser His Ser  
1 5 10

<210> 10  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 10  
ggagtggag tagaatggaa caactaaagg 30

<210> 11  
 <211> 37  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 11  
 ggcggcactg ttgaaagttg tctggcaaaa cctcata

37

<210> 12  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 12  
 Gly Gly Thr Val Glu Ser Cys Leu Ala Lys Pro His  
 1                      5                      10

<210> 13  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 13  
 tatgaggttt tgccagacaa ctttcaacag t

31

<210> 14  
 <211> 10  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 14  
 ctctcactcc

10

<210> 15  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 15

ggagtgagag taga

14

<210> 16

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 16

ggcggcactg ttgaaagttg t

21

<210> 17

<211> 11

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
oligonucleotide

<400> 17

ctttcaacag t

11

<210> 18

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 18

Cys Met Leu Gln Arg Leu

1

5

<210> 19

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 19  
Met Ser Arg Lys Leu Phe  
1 5

<210> 20  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 20  
Leu Trp Ala Gly His Glu  
1 5

<210> 21  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 21  
Val Gly Ile Thr Gln Leu  
1 5

<210> 22  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 22  
Lys Thr Ser Tyr Gly Gly  
1 5

<210> 23  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 23  
Gln Lys Arg Gly Glu Asp  
1 5

<210> 24  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 24  
Thr Leu Thr Lys Arg Gln  
1 5

<210> 25  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 25  
Ser Val Ser Leu Gln Ala  
1 5

<210> 26  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 26  
Ala Gly Ser Phe Glu Ala  
1 5

<210> 27  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 27  
Ala Ile Ala Ala Arg Ala  
1 5

<210> 28  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 28  
Lys Ala Arg Leu Gly Leu  
1 5

<210> 29  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 29  
Leu Ala Phe Leu Ala Met  
1 5

<210> 30  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 30  
Asp Leu Ser Pro Lys Val  
1 5

<210> 31  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide



<400> 31  
Asp Ser Glu Val Ser Leu  
1 5

<210> 32  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 32  
Arg Ala Ala Arg Asp Cys  
1 5

<210> 33  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 33  
Ile Tyr Thr Leu His Arg  
1 5

<210> 34  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 34  
Ile Thr Ala Pro Tyr Ser  
1 5

<210> 35  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 35  
Ser Asn Asp Leu Ser Gly  
1 5

<210> 36  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 36  
Cys Arg Gly Asn Ser Gly  
1 5

<210> 37  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 37  
Glu Arg Lys Ala Ser Val  
1 5

<210> 38  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 38  
Trp Ala Glu Val Phe Met  
1 5

<210> 39  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 39  
Val Ala Ala Gly Leu Asn  
1 5

<210> 40  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 40  
Gly Pro Leu Pro Leu Phe  
1 5

<210> 41  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 41  
Ser Asn Lys Gly Trp Ala  
1 5

<210> 42  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 42  
Lys His Met Leu Arg Trp  
1 5

<210> 43  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 43  
Val Gln Arg Leu Gly Lys  
1 5

<210> 44  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 44  
Ser Gly Leu Gln Arg Gly  
1 5

<210> 45  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 45  
Trp Glu Lys Pro Arg Arg  
1 5

<210> 46  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 46  
Arg Leu Val Ser Thr His  
1 5

<210> 47  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 47  
Cys Ala Ser Leu Arg Ser  
1 5

<210> 48  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 48  
Arg Ser Leu His Ala Gly  
1 5

<210> 49  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 49  
Arg Trp Thr Trp Leu Gly  
1 5

<210> 50  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 50  
Ala Thr Leu Gly Phe Ser  
1 5

<210> 51  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 51  
Ile Pro Gly Leu Leu Leu  
1 5

<210> 52  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 52  
Val Cys Leu Leu Thr Val  
1 5

<210> 53  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 53  
Gly Gly Gly Phe Thr Met  
1 5

<210> 54  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 54  
Asp Trp Val Gly Gly Ala  
1 5

<210> 55  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 55  
Thr Ala Met Gln Pro Gly  
1 5

<210> 56  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 56  
Leu Asp Leu Lys Arg Leu  
1 5

<210> 57  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 57  
Val Arg Asn Ser Met Gly  
1 5

<210> 58  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 58  
Arg Val Cys Asn Lys Thr  
1 5

<210> 59  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 59  
Arg Trp Ser Trp Glu Gln  
1 5

<210> 60  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 60  
Gly Asn Met Ala His Phe  
1 5

<210> 61  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 61  
Phe Asp Ser Phe Cys Arg  
1 5

<210> 62  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 62  
Gln Ala Val Leu Met Gln  
1 5

<210> 63  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide



<400> 63  
Gly Lys His Tyr Gln Trp  
1 5

<210> 64  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 64  
Gln Ser Arg Lys Ser Phe  
1 5

<210> 65  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 65  
Gly Tyr Ser Ser Val Asp  
1 5

<210> 66  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 66  
Glu Arg Cys Arg Val Asp  
1 5

<210> 67  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 67  
Tyr Ala Pro Ser Thr Arg  
1 5

<210> 68  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 68  
Ser Ile Gly Gln Ser Lys  
1 5

<210> 69  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 69  
Val Cys Pro Gln Phe Cys  
1 5

<210> 70  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 70  
Tyr Gly Gly Leu Gly Leu  
1 5

<210> 71  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 71  
Tyr Gly Gly Leu Gly Ile  
1 5

<210> 72  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 72  
Tyr Gly Gly Leu Gly Arg  
1 5

<210> 73  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 73  
Tyr Gly Gly Leu Asn Val  
1 5

<210> 74  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 74  
Tyr Gly Gly Leu Arg Ala  
1 5

<210> 75  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 75  
Tyr Gly Gly Leu Glu Met  
1 5

<210> 76  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 76  
Tyr Gly Gly Ile Ala Ser  
1 5

<210> 77  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 77  
Tyr Gly Gly Ile Ala Val  
1 5

<210> 78  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 78  
Tyr Gly Gly Ile Arg Pro  
1 5

<210> 79  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 79  
Tyr Gly Gly Trp Ala Gly  
1 5

<210> 80  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 80  
Tyr Gly Gly Trp Gly Pro  
1 5

<210> 81  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 81  
Tyr Gly Gly Trp Ser Ser  
1 5

<210> 82  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 82  
Tyr Gly Gly Met Lys Val  
1 5

<210> 83  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 83  
Tyr Gly Gly Phe Pro Asp  
1 5

<210> 84  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 84  
Tyr Gly Ser Leu Val Leu  
1 5

<210> 85  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 85  
Tyr Gly Ser Leu Val Gln  
1 5

<210> 86  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 86  
Tyr Gly Ser Leu Val Arg  
1 5

<210> 87  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 87  
Tyr Gly Ser Leu Ala Asp  
1 5

<210> 88  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 88  
Tyr Gly Ser Leu Leu Ser  
1 5

<210> 89  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 89  
Tyr Gly Ser Leu Asn Gly  
1 5

<210> 90  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 90  
Tyr Gly Ser Leu Tyr Glu  
1 5

<210> 91  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 91  
Tyr Gly Ser Trp Ala Ser  
1 5

<210> 92  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 92  
Tyr Gly Ser Trp Gln Ala  
1 5

<210> 93  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 93  
Tyr Gly Ser Phe Leu His  
1 5

<210> 94  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 94  
Tyr Gly Ala Leu Gly Gly  
1 5

<210> 95  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide



<400> 95  
Tyr Gly Ala Leu Ser Trp  
1 5

<210> 96  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 96  
Tyr Gly Ala Leu Asp Thr  
1 5

<210> 97  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 97  
Tyr Gly Ala Leu Glu Leu  
1 5

<210> 98  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 98  
Tyr Gly Ala Ile Gly Phe  
1 5

<210> 99  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 99  
Tyr Gly Ala Trp Thr Arg  
1 5

<210> 100  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 100  
Tyr Gly Trp Trp Gly Leu  
1 5

<210> 101  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 101  
Tyr Gly Trp Trp Leu Thr  
1 5

<210> 102  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 102  
Tyr Gly Trp Leu Ala Thr  
1 5

<210> 103  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 103  
Tyr Gly Trp Ala Asn Lys  
1 5

<210> 104  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 104  
Tyr Gly Asn Trp Thr Tyr  
1 5

<210> 105  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 105  
Tyr Gly Asn Phe Ala Asp  
1 5

<210> 106  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 106  
Tyr Gly Asn Phe Pro Ala  
1 5

<210> 107  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 107  
Tyr Gly Thr Phe Ile Leu  
1 5

<210> 108  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 108  
Tyr Gly Thr Trp Ser Thr  
1 5

<210> 109  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 109  
Tyr Gly Val Trp Ala Ser  
1 5

<210> 110  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 110  
Tyr Gly Val Trp Trp Arg  
1 5

<210> 111  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 111  
Tyr Gly Leu Trp Gln Ser  
1 5

<210> 112  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 112  
Tyr Gly Phe Trp Gly Met  
1 5

<210> 113  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 113  
Tyr Gly Lys Trp Ser Gly  
1 5

<210> 114  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 114  
Tyr Gly Pro Phe Trp Ser  
1 5

<210> 115  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 115  
Tyr Gly Glu Phe Val Leu  
1 5

<210> 116  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 116  
Tyr Gly Asp Phe Ala Phe  
1 5

<210> 117  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 117  
Tyr Ala Trp Gly Trp Gly  
1 5

<210> 118  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 118  
Tyr Ala Gly Phe Ala Gln  
1 5

<210> 119  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 119  
 Tyr Ser Met Phe Lys Glu  
 1 5

<210> 120  
 <211> 66  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 120  
 tatgaggttt tgccagacaa ctggaacagt ttcagcggag tgccagtaga atggaacaac 60  
 taaagg 66

<210> 121  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 121  
 ggagtgagag taga 14

<210> 122  
 <211> 11  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 122  
 ctttcaacag t 11

<210> 123  
 <211> 21  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 123  
 cgatctaaag ttttgtcgtc t 21

<210> 124  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 124  
Tyr Gly Gly Phe  
1

<210> 125  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 125  
Tyr Gly Gly Phe Leu  
1 5

<210> 126  
<211> 5  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 126  
Tyr Gly Gly Phe Met  
1 5

<210> 127  
<211> 4  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
peptide

<400> 127  
Tyr Gly Gly Leu  
1



<210> 128  
 <211> 4  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 128  
 Tyr Gly Phe Leu  
 1

<210> 129  
 <211> 4  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 peptide

<400> 129  
 Gly Gly Phe Leu  
 1

<210> 130  
 <211> 49  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> modified\_base  
 <222> (11)..(12)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (14)..(15)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (17)..(18)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (20)..(21)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (23)..(24)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (26)..(27)  
 <223> a, c, g or t

<400> 130  
 ctctcactcc nnknnknnkn nknnknnkcg cggcactggt gaaagttgt

49

<210> 131  
 <211> 85  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<220>  
 <221> CDS  
 <222> (1)..(30)

<220>  
 <221> CDS  
 <222> (49)..(84)

<220>  
 <221> modified\_base  
 <222> (31)..(32)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (34)..(35)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (37)..(38)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (40)..(41)  
 <223> a, c, g or t

<220>  
 <221> modified\_base  
 <222> (43)..(44)  
 <223> a, c, g or t

&lt;220&gt;

&lt;221&gt; modified\_base

&lt;222&gt; (46)..(47)

&lt;223&gt; a, c, g or t

&lt;400&gt; 131

cct	tta	gtt	gtt	cca	ttc	tac	tct	cac	tcc	nnknnknnkn	nknnknnk	ggc	51
Pro	Leu	Val	Val	Pro	Phe	Tyr	Ser	His	Ser			Gly	
1				5					10				

ggc	act	gtt	gaa	agt	tgt	ctg	gca	aaa	cct	cat	a	85
Gly	Thr	Val	Glu	Ser	Cys	Leu	Ala	Lys	Pro	His		
			15					20				